



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/966,326      | 09/28/2001  | Derek Booth          | SCH-92              | 3174             |

7590            08/27/2004

DORITY & MANNING  
ATTORNEYS AT LAW, P.A.  
P.O. Box 1449  
Greenville, SC 29602

EXAMINER

ENG, GEORGE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|          | 2643         |

DATE MAILED: 08/27/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                         |  |
|------------------------------|-------------------------------|-------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b>        | <b>Applicant(s)</b>     |  |
|                              | 09/966,326                    | BOOTH ET AL.            |  |
|                              | <b>Examiner</b><br>George Eng | <b>Art Unit</b><br>2643 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 01 June 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-60 is/are pending in the application.  
 4a) Of the above claim(s) 31-40 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-30 and 41-60 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4 and 6-7</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 31-40 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/1/2004 (paper no. 10).
  
2. This application contains claims 31-40 are drawn to an invention nonelected with traverse in Paper No. 10. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4 and 6, the phrase "may be" renders the claim vague and indefinite because the phrase "may be" has an alternative meaning, which does not positively define the claimed limitations.

Claims 5 and claims 7-9 are also rejected because of depending on claims 4 and 6, respectively, containing the same deficiency.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelley et al. (US PAT. 6,088,659 hereinafter Kelley).

Regarding claim 1, Kelley discloses an interactive system (10, figure 1) for managing customer utility loads comprising a plurality of utility meters (60, figure 1) for monitoring the distribution of a product at respective said customer utility loads, a web application (50, figure 1) that offers a plurality of services to a user (40, figure 1), wherein selected of said services provide data corresponding to product distribution at selected of said customer utility loads, a control network (15, figure 1) linked to the web-based application for managing the interaction of selected elements of the system and for storing various system-related data, and a communication network (80, figure 1) linking the control network to the utility meters and for relay communications signals (col. 12 line 13 through col. 13 line 33 and col. 22 line 37 through col. 25 line 27).

Regarding claims 2-3, Kelley discloses the plurality of services comprising a read service to remotely read metered data corresponding to selected of said customer utility loads and subsequently display data reports corresponding to the metered data, and a usage notification

service for receiving notification when selected of the customer utility loads exceeds a threshold amount or utility demand inputted by a user (col. 5 line 35 through col. 10 line 42 and col. 14 line 13 through col. 16 line 12).

Regarding claim 10, Kelley discloses each of the utility meters comprising a communication component for transmitting and receiving radio frequency signals among the communication network (col. 12 lines 33-37 and col. 13 lines 19-33).

Regarding claim 11, Kelley discloses utility commodities selected from the group comprising water, gas and electricity (col. 12 line 31).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 4-9 and 12-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley et al. (US PAT. 6,088,659 hereinafter Kelley) in view of Ehlers et al. (US PAT. 5,572,438 hereinafter Ehlers).

Regarding claims 4-9, Kelley differs from the claimed invention in not specifically teaching the plurality of services comprising a connection service for effecting the connection status of the customer utility load, wherein the connection status established by a circuit breaker is either connected or disconnected and access to the web-based application is effected upon a user inputting an identification element and a corresponding password element. However, Ehlers teaches an energy management system having remote connect and disconnect capabilities by remotely controlling meter switches, i.e., circuit breakers, in order to make user friendly by allowing customer to control operation of utility loads. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kelley in having the connection service for effecting the connection status of the customer utility load, wherein the connection status established by a circuit breaker is either connected or disconnected and access to the web-based application is effected upon a user inputting an identification element and a corresponding password element, as per teaching of Ehlers, because it makes user friendly by allowing customer to control operation of utility loads.

Regarding claim 12, Kelley discloses an interactive system (10, figure 1) for managing customer utility loads comprising a plurality of utility meters (60, figure 1) for monitoring the distribution of a product at respective said customer utility loads, a web application (50, figure 1) that offers a plurality of services to a user (40, figure 1), wherein selected of said services provide data corresponding to product distribution at selected of said customer utility loads, a

control network (15, figure 1) linked to the web-based application for managing the interaction of selected elements of the system and for storing various system-related data, and a communication network (80, figure 1) linking the control network to the utility meters and for relay communications signals (col. 12 line 13 through col. 13 line 33 and col. 22 line 37 through col. 25 line 27). Kelley differs from the claimed invention in not specifically teaching the web-based application providing selectable services comprising disconnecting or reconnecting product flow to select of the utility load. However, However, Ehlers teaches an energy management system having remote connect and disconnect capabilities by remotely controlling meter switches, i.e., circuit breakers, in order to make user friendly by allowing customer to control operation of utility loads (col. 29 lines 8-28). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Kelley in having the web-based application providing selectable services comprising disconnecting or reconnecting product flow to select of the utility load, as per teaching of Ehlers, because it makes user friendly by allowing customer to control operation of utility loads.

Regarding claims 13-15, Kelley discloses the selectable services comprising a consumption usage notification service and utility demand notification service, wherein a user inputs a threshold amount of utility consumption and receives a notification when the utility usage or utility demand amount of selected of the customer utility load exceeds the threshold amount, and wherein access to the web-based platform is effected upon user inputting an identification element and password element (col. 5 line 35 through col. 10 line 42 and col. 14 line 13 through col. 16 line 12), as well as Ehlers (col. 28 line 51 through col. 30 line 18).

Regarding claim 16, Kelley discloses the control network comprising database for storing meter data corresponding to selected of said customer utility loads and for storing system information for the web-based platform (col. 17 lines 20-28).

Regarding claim 17, Kelley discloses the utility product corresponding to electricity (col. 12 line 31).

Regarding claims 18-20, Ehlers teaches the selectable service of disconnecting or reconnecting electricity flow corresponding to either physically disconnect or reconnecting by toggling a connection element, i.e., a circuit breaker, or virtually disconnecting or reconnecting the flow of electricity (col. 29 lines 8-28).

Regarding claim 21, the limitations of the claim are rejected as the same reasons set forth in claim 12.

Regarding claims 22-24, the limitations of the claims rejected as the same reasons set forth in claims 18-20.

Regarding claim 25, Kelley teaches a solid-state electronic utility meter for measuring the flow of electricity at the customer utility load (col. 12 lines 19-21).

Regarding claim 26, Ehlers discloses the web application comprising a remote read service for remotely collecting meter data after the connection element is toggled to disconnected status, thus ensuring that the connection element is indeed in disconnected status (col. 28 line 56 through col. 29 line 28).

Regarding claim 27, Kelley discloses access to the web-based application being effected upon a user entering an identification element and password element (col. 15 lines 1-8).

Regarding claims 28-30, the limitations of the claims are rejected as the same reasons set forth in claims 18-20.

10. Claims 41-50 and 52-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (USPAT. 5,572,438 hereinafter Ehlers) in view of Williams et al. (US PAT. 5,801,643 hereinafter William).

Regarding claim 41, Ehlers discloses a method for effecting the connection status of a customer utility load via a web-based utility application comprising the steps of providing user-inputted access information to the web-based application, performing a first remote read of a utility meter associated with the customer utility load to verify initial connection status of the customer utility load (col. 24 line 53 through col. 26 line 50 and col. 28 line 56 through col. 29 line 7). Ehlers differs from the claimed invention in not specifically teaching the steps of transmitting a connection signal from a main control station to an RF receiver provided at the utility meter and performing a second remote read of the utility meter to verify final connection status of the customer utility load. However, William teaches a remote utility meter reading system capable of transmitting a command from a control station to an RF receiver at an utility meter and performing a second remote read of the utility meter to verify final connection status of customer utility load (col. 9 lines 31-50) in order to effectively re-transmission of utility meter reading when it has not been properly received. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ehlers in having the steps of transmitting the connection signal from the main control station to the RF receiver provided at the utility meter and performing the second remote read of the utility meter to verify

final connection status of the customer utility load, as per teaching of Williams, in order to effectively re-transmission of utility meter reading when it has not been properly received.

Regarding claims 42-47, Ehlers teaches to transmit a connection signal implements as an additional step of virtually connecting or disconnecting the customer utility load, and to remotely set a connection element associated with the utility meter to either disconnect or connect status corresponding to physically connecting or disconnecting the customer utility load, wherein the customer utility load corresponds to the distribution of electrical energy to a predetermined location (col. 29 lines 8-56).

Regarding claims 48, Williams teaches to periodically performing addition remote reads of the utility meter to verify the connection status of and to ensure proper operation of the utility meter (col. 9 lines 17-30).

Regarding claims 49-50, Ehlers discloses a user of the web-based application inputs a threshold amount of connection signal occurs and transmitting a connection signal when the customer utility load usage exceeds the threshold amount of utility consumption, wherein a usage alert is provided to the user as notification that the customer utility load usage has exceeded the established threshold amount (col. 29 lines 8-56).

Regarding claims 52-54, Ehlers teaches a process of rapidly performing a plurality of remote reads of the utility meter after remotely setting the connection element to connection status to ensure proper operation of the customer utility load, i.e., preventing to distribute dangerously high amounts of electrical energy or disconnecting the connection element when the amount of electrical energy distributed to the customer utility load is beyond an established

threshold of excessive energy consumption (col. 29 line 8 through col. 30 line 18 and col. 32 line 3 through col. 33 line 39).

Regarding claim 55, the limitations of the claim are rejected as the same reasons set forth in claim 41. In addition, Ehlers teaches a process of disconnecting the connection element when instantaneous energy consumption is above a predefined energy consumption threshold (col. 29 line 8 through col. 30 line 18 and col. 32 line 3 through col. 33 line 39).

Regarding claim 56, the limitations of the claim are rejected as the same reasons set forth in claim 47.

Regarding claim 57, Ehlers teaches the predefined energy consumption threshold being established to provide sufficient protection against potential voltage surges at the customer utility load (col. 32 lines 3-45).

Regarding claim 58, the limitations of the claim are rejected as the same reasons set forth in claim 48.

Regarding claim 59, Ehlers discloses access to the web-based application being effected upon a user entering an identification element and password element (col. 12 lines 3-20).

Regarding claim 60, Ehlers discloses to generate utility reports related to the customer utility load, wherein the reports are based on information collected from remote reads of utility meter (abstract) and Williams teaches to periodically perform remote reads of the utility meter (col. 9 lines 18-30). Thus, one skill in the art would recognize to modify the combination of Ehlers and Williams in generating utility reports at least once a data based on information collected at periodically remote reads.

11. Claims 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (USPAT. 5,572,438 hereinafter Ehlers) in view of Williams et al. (US PAT. 5,801,643 hereinafter William) as applied in claim 41 above, and further in view of Woolard et al. (US PAT. 6,178,362 hereinafter Woolard).

Regarding claim 51, the combination of Ehlers differs from the claimed invention in not specifically teaching the usage alert of expression the threshold amount of utility being exceeded comprising an electronically mail message. However, it is old and notoriously well known in the art of an energy and facilities management system for providing usage alert by various different techniques, i.e., e-mail, fax or page, in order to make user friendly. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Ehlers and Williams in having the usage alert of expression the threshold amount of utility being exceeded comprising an electronically mail message, as per teaching of Woolard, in order to make user friendly.

### *Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cunningham et al. (US PAT. 6,124,806) discloses a wide-area remote telemetry system for monitoring and controlling remote devices (abstract). Truong et al. (US PAT. 6,160,873) discloses a system and method for allowing remote initialization, operation and monitoring of a general-purpose computer and its power supply through bi-directional control of the computer (abstract).

13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington D.C. 20231

Or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, V.A., Sixth Floor (Receptionist).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tuesday to Friday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz, can be reached on (703) 305-4870. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



George Eng  
Primary Examiner  
Art Unit 2643